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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 8555 (1988): Bread Rusks [FAD 16: Foodgrains, Starches and Ready to Eat Foods]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

Invent a New India Using Knowledge



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



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Bakery and Confectionery Industry Sectional Committee, AFDC 31; Bakery Subcommittee, 31 : 1 [Ref : Doc : AFDC 31 (2915)]

*Indian Standard***SPECIFICATION FOR BREAD RUSKS***(First Revision)*

0. Foreword — In the preparation of this standard, due consideration has been given to the Prevention of Food Adulteration Act, 1954 and the Rules framed thereunder and the standards of Weights and Measures (Packaged Commodities) Rules, 1977. However, this standard is subject to the restrictions imposed under these, wherever applicable.

1. Scope — This standard prescribes the requirements and the methods of sampling and test for bread rusks including plain rusks, *SUJI* rusks and milk rusks.

2. Essential Ingredients — In the manufacture of bread rusks, the following ingredients shall be used:

- a) Wheat flour (*MAIDA*) conforming to IS : 7464-1974 'Specification for wheat-flour for use in bread industry'.
- b) Leavening agents — The following material, singly or in combination, may be used as leavening agents in the preparation of bread rusks:
 - 1) Baker's yeast [see IS : 1320-1988 Specification for baker's yeast (*third revision*)],
 - 2) Barm and hops,
 - 3) Fermented juice obtained from palms, and
 - 4) Lactic acid ferment.
- c) Edible common salt [see IS : 253-1970 Specification for edible common salt (*second revision*)] or iodized salt (see IS : 7224-1973 Specification for iodized salt).
- d) Water (see IS : 4251-1967 Quality tolerances for water for processed food industry).
- e) Fat-hydrogenated edible vegetable oil (see IS : 10633-1983 Specification for *VANASPATI*), or refined edible vegetable oil, butter, *GHEE*, margarine or their mixture.
- f) Milk solids (only in the case of milk rusks) — Milk in any form or milk products such as skimmed milk or milk powder [see IS : 1165-1986 Specification for milk powder (*second revision*)], condensed milk [see IS : 1166-1986 Specification for condensed milk (*first revision*)], or any other milk solids.
- g) Semolina (only in the case of *SUJI* rusks) [see IS : 1010-1968 Specification for *SUJI* or *RAWA* (*semolina*) (*first revision*)].

3. Optional Ingredients

3.1 In addition to the essential ingredients specified under **2**, any of the following ingredients may be added to the dough used in the preparation of bread rusks:

- 1) Vital gluten;
- 2) Sugar and sugar products such as *gur*, jaggery, *bura* and *khandsari*;
- 3) Honey;
- 4) Liquid glucose [see IS : 873-1974 Specification for liquid glucose (*first revision*)];
- 5) Dextrose monohydrate [see IS : 874-1975 Specification for dextrose monohydrate (*second revision*)];
- 6) Malt products;
- 7) Edible flours/starches — conforming to relevant Indian Standard specifications;

- 8) Edible oilseed flours, concentrates and isolates — conforming to relevant Indian Standard specifications;
- 9) Vitamins and minerals;
- 10) Lecithin (see IS : 5055-1969 Specification for lecithin, food grade);
- 11) Glycerine;
- 12) Albumin;
- 13) Lime water;
- 14) Fungal alpha amylase;
- 15) Lysine hydrochloride;
- 16) Sorbitol;
- 17) Emulsifying agents — permitted in PFA Rules;
- 18) Stabilizing agents — permitted in PFA Rules;
- 19) Wholemeal wheat flour;
- 20) Eggs;
- 21) Semolina;
- 22) Milk and milk products — such as condensed milk (see IS : 1166-1986), milk powder (see IS : 1165-1986), whey and curd;
- 23) Spices, condiments and their extracts;
- 24) Dried fruits and nuts;
- 25) Ammonium chloride — not exceeding 0·5 g/kg of the mass of the cereal mix; and
- 26) Ascorbic acid.

3.2 Improvers — The following improvers in the quantities given against each may be used in the preparation of bread rusks:

a) Ammonium persulphate	: Not exceeding 2·5 g/kg of the mass of the cereal mix
b) Calcium phosphate	: Not exceeding 2·5 g/kg of the mass of the cereal mix
c) Calcium carbonate	: Not exceeding 5·0 g/kg of the mass of the cereal mix
d) Acid calcium phosphate	: Not exceeding 10·0 g/kg of the mass of the cereal mix
e) Potassium bromate and/or potassium iodate	: Not exceeding 50 mg/kg of the mass of the cereal mix
f) L-cysteine hydrochloride	: Not exceeding 90 mg/kg of the mass of the cereal mix

3.3 Mould and Rope Inhibitors — The following mould and rope inhibitors in the quantities given against each may be used, in the preparation of the bread rusks:

a) Calcium or sodium propionate	: Not exceeding 5·0 g/kg of the mass of the cereal mix
b) Acetic acid (glacial) or lactic acid	: Not exceeding 2·5 g/kg of the mass of the cereal mix
c) Vinegar	: Equivalent to the concentration of acetic acid permitted
d) Sodium diacetate	: Not exceeding 4·0 g/kg of the mass of the cereal mix
e) Acid sodium pyrophosphate	: Not exceeding 5·0 g/kg of the mass of the cereal mix
f) Sorbic acid and its sodium, potassium or calcium salts	: Not exceeding 1·0 g/kg of the mass of the cereal mix

4. Requirements

4.1 The bread rusks shall be crisp and of uniform texture. They shall be free from blisters and shall be uniform golden to light brown in colour. They shall be of an agreeable odour typical of well-baked

bread rusks and shall be free from any evidence of rancidity, bitterness, mustiness and foreign flavour or odour. The bread rusks shall also be free from any harmful or injurious foreign matter.

Note — The appearance, taste and odour shall be determined by sensory tests.

4.2 The rusks shall also comply with the requirements given in Table 1.

TABLE 1 REQUIREMENTS FOR BREAD RUSKS

Sl No.	Characteristic	Requirement	Method of Test, Ref to Appendix of IS : 1011-1981*
I)	Moisture, percent by mass, Max	10·0	A
II)	Acid insoluble ash (on dry basis), percent by mass, Max	0·5	B
III)	Acidity of extracted fat (as oleic acid), percent by mass, Max	1·5	C

*Specification for biscuits (*second revision*).

4.3 In the case of milk rusks, the total non-fat milk solids, on dry basis, shall be not less than 6·0 percent when determined by the method given in Appendix A of IS : 11231-1985 'Specification for milk bread'.

4.4 The bread rusks shall be manufactured in premises maintained under hygienic conditions (see IS : 5059-1969 Code for hygienic conditions for large scale biscuit manufacturing units and bakery units).

5. Packing and Marking

5.1 *Packing* — The bread rusks shall be packed in clean and sound containers made of tinplate, cardboard, polyethylene (see IS : 10141-1982 Positive list of constituents of polyethylene in contact with foodstuffs, pharmaceuticals and drinking water), polypropylene (see IS : 10909-1984 Positive list of constituents of polypropylene and its copolymers in contact with foodstuffs, pharmaceuticals and drinking water), paper or other material as agreed to between the purchaser and the supplier in such a way as to protect them from contamination and absorption of moisture.

Note — The bread rusk shall be cooled completely before packing.

5.2 *Marking* — The following particulars shall be clearly and indelibly marked on each container:

- a) Name and description of the product;
- b) Name of the manufacturer;
- c) Trade name, if any;
- d) Batch or code number;
- e) Date of manufacture;
- f) Net mass in g or kg; and
- g) Any other details required under the Standards of Weights and Measures (Packaged Commodities) Rules, 1977/PFA Regulations.

5.2.1 *Standard marking* — Details available with the Bureau of Indian Standards.

6. Sampling — Representative samples of the material shall be drawn and criteria for ascertaining conformity of the material to the requirements of this specification shall be as prescribed in Appendix D of IS : 1011-1981 'Specification for biscuits (*second revision*)'.

7. Tests

7.1 Tests shall be carried out as prescribed in 5.2 and in the appropriate appendices specified in Table 1.

7.2 *Quality of Reagents* — Unless specified otherwise, pure chemicals and distilled water [see IS : 1070-1977 Specification for water for general laboratory use (*second revision*)] shall be employed in tests.

Note — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of tests.

E X P L A N A T O R Y N O T E

Bread rusks are among the oldest dietetic foods and are still increasingly consumed in the country. They contain an ideal combination of nutritive substances. Due to good keeping quality, bread rusks have been found useful in dietetics and also serve as a bread reserve.

Bread rusks are of different types, namely, plain rusks, *SUJI* rusks, milk rusks, etc. The process of making bread rusks involves first making the bread in the desired shape and then after baking and cooling, it is sliced and retoasted. Toasting plays an important role in the quality of bread rusks.

This standard was first published in 1977 and has been revised in view of the latest technological and trade advances. The standard includes bread rusks of different varieties, namely, plain rusks, milk rusks and *SUJI* rusks. In the case of milk rusks, the minimum requirement for milk solids has been laid down. The list of ingredients used for the manufacture of rusks has also been enlarged to include all the materials being used at present.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

**AMENDMENT NO. 1 OCTOBER 1998
TO
IS 8555 : 1988 SPECIFICATION FOR BREAD RUSKS
(*First Revision*)**

Substitute 'rusks' for 'bread rusks' in the title and wherever it occurs in the text.

(FAD 15)

Reprography Unit, BIS, New Delhi, India

**AMENDMENT NO. 2 OCTOBER 2011
TO
IS 8555 : 1988 SPECIFICATION FOR RUSKS**

(First Revision)

[*Page 3, Table 1, Sl No. (i), col 3*] — Substitute ‘3.0’ for ‘10.0’.

(FAD 16)

Reprography Unit, BIS, New Delhi, India